

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 11253P-WO	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2004/003804	International filing date (day/month/year) 08/04/2004	(Earliest) Priority Date (day/month/year) 09/04/2003
Applicant GENERAL ELECTRIC COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/003804

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H02J3/38 F03D9/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H02J F03D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	WO 03/030329 A (WOBLEN ALOYS) 10 April 2003 (2003-04-10) abstract page 14, paragraph 5 - page 18, paragraph 1 page 20, paragraph 4 - page 21, paragraph 1 claims 7,8,10,11,15 ----- -/--	1-21



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

13 July 2004

Date of mailing of the international search report

21/07/2004

Name and mailing address of the ISA

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Authorized officer

Lorenzo Feijoo, S

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	J SVENSSON AND P KARLSSON: "Wind Farm Control Software Structure" THIRD INTERNATIONAL WORKSHOP ON TRANSMISSION NETWORKS FOR OFFSHORE WIND FARMS, 'Online! April 2002 (2002-04), XP002254250 Stockholm Retrieved from the Internet: URL: http://www.iea.lth.se/lieper/DistributedPowerSystems/OffshoreWindFarms2002-paper.pdf 'retrieved on 2003-09-01! the whole document	1, 3-7, 12-14, 16, 20, 21
X	A DE LEMOS PEREIRA: "Modular Supervisory controller for hybrid systems" PHD THESIS, 'Online! June 2000 (2000-06), page 1, XP002254251 Roskilde Retrieved from the Internet: URL: http://www.risoe.dk/rispubl/VEA/veapdf/ris-r-1202.pdf 'retrieved on 2003-09-11! page 17 - page 21	1-6, 13
X	DE 196 20 906 A (SIEMENS AG) 8 January 1998 (1998-01-08) abstract; figure 3 column 7; figure 6	7-11, 14, 15
X	P CHRISTIANSEN, K K JORGENSEN, A G SORENSEN: "Grid Connection and Remote Control for the Horns Rev 150 MW Offshore Wind Farm in Denmark" FIRST/SECOND INTERNATIONAL WORKSHOP ON TRANSMISSION NETWORKS FOR OFFSHORE WIND FARMS, 'Online! March 2001 (2001-03), pages 1-11, XP002254252 Stockholm Retrieved from the Internet: URL: http://www.owen.eru.rl.ac.uk/workshop_4/pdfs/owen_Christiansen.pdf 'retrieved on 2003-09-11! pages 3-4 pages 10-11	1, 4-7, 13, 14

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/003804

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TAPIA A ET AL: "Modeling and dynamic regulation of a wind farm" 7TH IEEE INTERNATIONAL POWER ELECTRONICS CONGRESS. TECHNICAL PROCEEDINGS. CIEP 2000 (CAT. NO.00TH8529), PROCEEDINGS OF CIEP 2000. 7TH IEEE INTERNATIONAL POWER ELECTRONICS CONGRESS, ACAPULCO, MEXICO, 15-19 OCT. 2000, October 2000 (2000-10), pages 293-297, XP010527924 2000, Piscataway, NJ, USA, IEEE, USA ISBN: 0-7803-6489-9 the whole document	7-9,11, 14
A	DE 100 22 974 A (WOBBEN ALOYS) 22 November 2001 (2001-11-22) abstract paragraph '0016! - paragraph '0019!; claims 1,2,4-6; figures 3,4	1,2,4,6, 13
A	KONLOGIANNIS C C ET AL: "An efficient power management and control in wind parks by means of a radio telemetry control system" ELECTROMOTION'01. 4TH INTERNATIONAL SYMPOSIUM ON ADVANCED ELECTROMECHANICAL MOTION SYSTEMS. PROCEEDINGS, PROCEEDINGS OF 4TH INTERNATIONAL SYMPOSIUM ON ADVANCED ELECTROMECHANICAL MOTION SYSTEMS - ELECTROMOTION 2001, BOLOGNA, ITALY, 19-20 JUNE 2001, October 2001 (2001-10), pages 461-465 vol.2, XP001154444 2001, Bologna, Italy, Univ. Bologna, Italy ISBN: 88-900615-0-2 the whole document	1,6,7
A	US 2002/029097 A1 (LEE MARK I ET AL) 7 March 2002 (2002-03-07) abstract; figures 1A,1B paragraph '0006! - paragraph '0010! paragraph '0069! paragraph '0180!	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/003804

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03030329	A	10-04-2003	CA 2460724 A1	10-04-2003
			WO 03030329 A1	10-04-2003
			EP 1433238 A1	30-06-2004
DE 19620906	A	08-01-1998	DE 19620906 A1	08-01-1998
			WO 9745908 A1	04-12-1997
			EP 0939995 A1	08-09-1999
DE 10022974	A	22-11-2001	DE 10022974 A1	22-11-2001
			AT 248990 T	15-09-2003
			AU 5476101 A	20-11-2001
			CA 2409514 A1	08-11-2002
			CA 2455144 A1	08-11-2002
			CN 1437684 T	20-08-2003
			DE 20121650 U1	06-03-2003
			DE 50100583 D1	09-10-2003
			DK 1282774 T3	29-12-2003
			WO 0186143 A1	15-11-2001
			EP 1282774 A1	12-02-2003
			EP 1371846 A2	17-12-2003
			ES 2204859 T3	01-05-2004
			JP 2003535561 T	25-11-2003
			MA 25669 A1	31-12-2002
			NO 20025360 A	10-01-2003
			PT 1282774 T	30-01-2004
			US 2003155773 A1	21-08-2003
			ZA 200209257 A	20-08-2003
US 2002029097	A1	07-03-2002	WO 0177525 A1	18-10-2001